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THE CATTLE INDUSTRY.

DEPARTMENT OF AGRICULTURE.

MISCELLANEOUS.

SPECIAL REPORT No. 6.

ADDRESS

OF

HON. GEO. B. LORING,

U. S. COMMISSIONER OF AGRICULTURE,

AT THE

NATIONAL CONVENTION OF CATTLE-BREEDERS,

CHICAGO, ILL.,

NOVEMBER 13, 1884;

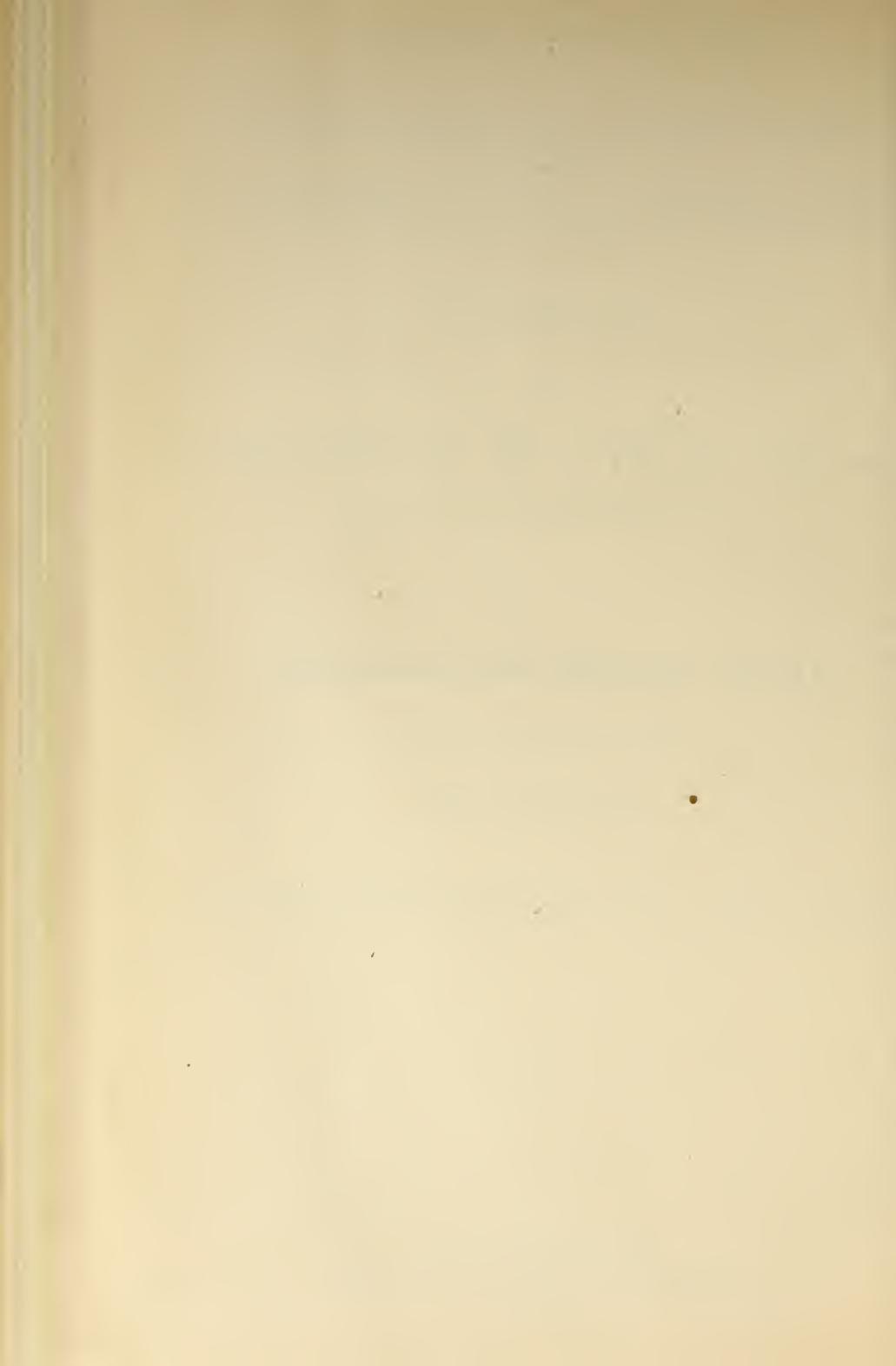
ALSO THE REPORT OF THE VETERINARY INSPECTORS IN NEW YORK.

WASHINGTON:

GOVERNMENT PRINTING OFFICE.

1884.

7525—No. 6



ADDRESS
OF
HON. GEORGE B. LORING.

GENTLEMEN: The importance of the cattle industry which you represent cannot be too highly estimated. In the details of domestic and diversified agriculture the possession of cattle has always been considered indispensable to success; and the French maxim, "No cattle, no farming; few cattle, poor farming; many cattle, good farming," has been accepted as a fundamental law of farming. In a wider sphere cattle have from time immemorial been considered of the highest commercial value. The wealth of ancient rulers was counted by the magnitude of their flocks and herds, and when the sacred writer sought for the crown of divine power and possession he found it in "the cattle on a thousand hills." For the development of this great ally to his comfort and prosperity, man has taxed his highest industry and skill. For the improvement of our grains and grasses and fruits science and art have been applied most diligently during all the centuries that the farmer and the gardener have toiled at their great occupation. Every latitude has been explored for those vegetable products, which care and diligence have brought to their present perfection, and upon the successful cultivation of which the great mass of mankind depend for their most healthful subsistence. But man's highest achievement in subduing and shaping nature to his wants and necessities may be found in his selection of the animals adapted to his needs, and his success in developing all their traits and qualities up to a partnership with himself in the work of civilization. Recognizing the natural laws which control the animal kingdom, and the influences of soil and climate on the animal structure, what a vast diversity of breeds and races have been adapted to every hill and plain, to every zone, to every condition of food and labor and confinement! What a long stride in the education of the animal to an intelligent understanding of the work he is to perform lies between the five hundred half-trained yoke of oxen of Job and the cultivated sagacity which enables the cattle of the American farmer to apply their strength with such amazing effect! What a contrast between the wild and flying drover of the pampas following his untamed, athletic herds across the

plains and the solidity of the breeder of Shorthorns and Herefords as he contemplates the grand proportions and the profitable thrift of the fruits of his successful breeding and feeding! And when we consider the wisdom and keen perception which Bakewell and Colling exercised in producing that monument of man's skill in shaping and molding the animal kingdom, we can realize the value and importance of that work, which has enabled the members of this association to occupy the vast plains of the West with their herds, and to collect the admirable exhibit which is now gathered in this city, and which cannot be surpassed anywhere in the world.

The number and value of cattle in this country indicates the attention which is now paid to every form of this important industry. The enumeration of the cows in all the States and Territories gives us 13,501,206, and that of other cattle gives us 29,046,101. The estimated value of the cows is \$423,486,649, and the estimated value of other cattle is \$683,229,054. The total amount of this species of property is \$1,106,715,703. The average value of the cows is \$31.37, and that of other cattle is \$23.52.

New York has the largest number of cows used in the dairy (1,510,904), and Wyoming the smallest (4,533). New York has \$54,891,142 in cows, and \$33,084,771 in all other cattle. Wyoming has \$149,589 in cows and \$23,456,550 in other cattle.

The following table gives these estimates complete for all the States and Territories:

Table showing the estimated number of animals on farms, total value of each kind, and average price, January, 1884.

States and Territories.	Milch-cows.			Oxen and other cattle.		
	Number.	Average price.	Value.	Number.	Average price.	Value.
Maine	162,095	\$34.50	\$5,592,277	188,919	\$32.03	\$6,051,076
New Hampshire	95,157	32.62	3,104,021	141,784	33.44	4,741,257
Vermont	230,317	31.00	7,139,827	187,933	32.91	6,184,875
Massachusetts	160,226	38.50	6,168,701	108,393	34.71	3,762,321
Rhode Island	21,882	35.50	776,811	13,427	38.51	517,074
Connecticut	121,066	33.42	4,044,021	113,440	34.97	3,966,997
New York	1,510,904	36.33	54,891,142	886,041	37.34	33,084,771
New Jersey	164,566	39.33	6,472,381	69,947	37.57	2,627,909
Pennsylvania	884,351	36.66	32,420,308	875,994	31.75	27,812,809
Delaware	27,842	35.60	991,175	26,525	32.54	863,123
Maryland	124,750	36.25	4,522,187	139,592	26.41	3,686,625
Virginia	245,353	22.85	5,606,316	436,820	20.55	8,976,651
North Carolina	234,339	17.00	3,983,763	415,508	10.84	4,547,467
South Carolina	137,763	22.33	3,076,248	216,880	11.75	2,548,340
Georgia	341,048	19.04	6,493,554	610,811	14.75	7,177,029
Florida	46,054	14.30	658,572	560,000	9.18	5,140,800
Alabama	279,668	16.51	4,617,319	480,100	11.33	5,439,533
Mississippi	274,829	16.75	4,603,386	420,499	10.81	4,545,594
Louisiana	153,452	20.43	3,135,024	271,633	12.22	3,318,989
Texas	667,501	24.50	16,353,774	4,277,700	17.51	74,902,527
Arkansas	257,752	21.67	5,585,486	420,876	13.66	5,749,160
Tennessee	313,742	23.52	7,379,124	466,084	16.74	7,802,246
West Virginia	161,378	31.06	5,012,401	289,519	25.56	7,400,106
Kentucky	304,720	32.28	9,836,362	498,888	27.65	13,794,264
Ohio	781,996	36.50	28,542,854	1,017,820	29.42	29,944,264
Michigan	404,078	36.44	14,724,602	491,792	27.99	13,765,258

Table showing the estimated number of animals on farms, &c.—Continued.

States and Territories.	Milch-cows.			Oxen and other cattle.		
	Number.	Average price.	Value.	Number.	Average price.	Value.
Indiana	504, 793	\$35 00	\$17, 667, 755	851, 355	\$26 85	\$22, 858, 882
Illinois	900, 984	35 00	31, 534, 440	1, 442, 344	28 04	40, 443, 326
Wisconsin	532, 734	32 50	17, 313, 855	682, 743	26 67	18, 208, 756
Minnesota	343, 864	31 50	10, 831, 716	427, 064	25 56	10, 916, 267
Iowa	1, 085, 077	31 75	34, 451, 195	1, 955, 810	26 00	50, 851, 060
Missouri	674, 565	28 00	18, 887, 820	1, 335, 082	22 62	30, 199, 555
Kansas	526, 933	33 60	17, 704, 949	1, 395, 200	27 12	37, 837, 824
Nebraska	255, 544	33 00	8, 432, 952	1, 368, 500	26 44	36, 183, 140
California	220, 708	38 00	8, 386, 904	609, 500	29 15	17, 766, 925
Oregon	65, 616	36 00	2, 362, 176	535, 600	26 21	14, 038, 076
Nevada	16, 029	37 33	598, 363	218, 360	27 15	5, 928, 474
Colorado	43, 114	40 60	1, 750, 428	772, 560	26 47	20, 449, 663
Arizona	13, 057	32 50	424, 352	203, 000	20 00	4, 060, 000
Dakota	75, 937	33 37	2, 534, 018	270, 600	26 69	7, 222, 314
Idaho	15, 862	37 50	594, 825	204, 750	26 00	5, 323, 500
Montana	14, 239	37 00	526, 843	672, 600	26 16	17, 595, 216
New Mexico	16, 743	35 00	586, 005	690, 562	20 01	13, 818, 146
Utah	38, 473	35 12	1, 351, 172	132, 180	23 89	3, 157, 780
Washington	45, 632	36 50	1, 665, 568	230, 376	24 84	5, 722, 540
Wyoming	4, 533	33 00	149, 589	897, 000	26 15	23, 456, 550
Indian Territory				520, 000	17 00	8, 840, 000
Total	13, 501, 206	31 37	423, 486, 649	29, 046, 101	23 52	683, 229, 054

I have said that no achievement in the development of natural products by cultivation is more remarkable than that which has been accomplished in the improvement of cattle by care and breeding. Great care has been taken and large amounts of money have been expended in this work during the last three-quarters of a century. The important agricultural event of that day was the importation, in 1834, of a herd of Shorthorns into the Scioto Valley, Ohio, by an association of cattle breeders organized for that purpose. They laid the foundation for the great beef-producing industry of the West. The importations which followed—those of Mr. Clay in 1838, of Mr. George Vail in 1839, of Mr. Samuel Thorne in 1853, and of Mr. Alexander in the same and following years—have added vastly to the wealth of the country.

The importations of Herefords by Mr. Corning, and quite recently of Messrs. Burleigh & Hall, whose enterprise is worthy of great commendation, have added to the rapid growth, light offal, even shape of the Shorthorns, as it is said a strain of hardy blood which is well adapted to endure the exposure of Western ranches and ranges. It would be difficult to estimate the value of these two breeds alone in developing beef production of this country, and in creating the vast profits derived from pasturing the great Western plains. I give you a few general statements of the improvement of cattle by judicious and careful breeding, and submit a table which will give you in full detail this interesting point in our cattle husbandry. In the New England States the value of this improvement is \$13,068,109 on \$38,981,149, or 34 per cent.; in New York, New Jersey, and Pennsylvania, \$43,180,102 on \$114,129,218, or 38 per cent.; in the Western Central States,

\$125,575,324 on \$316,007,714; in the Cotton States, \$36,802,499 on \$106,629,757.

In an investigation by the Bureau of Statistics of the Department of Agriculture, made last April, estimates of the number of high-grade cattle ranged from 5 per cent. in New Mexico to 40 per cent. in Ohio and Kentucky, and averaged 18 per cent., or 7,723,539 of a total of over 42,000,000 animals. An attempt was also made to indicate, approximately at least, that portion of the present value of cattle represented by improvement in breeding since the introduction of improved herds; that is, of the present value of all our cattle, how much is due to the efforts of breeders, and what would be the value of our present stock if in size and quality of the unimproved natives. The average improvement is 35 per cent., which would seem to be a moderate and conservative estimate, and yet it amounts to \$287,000,000. This would make the value of our cattle as unimproved natives \$819,000,000, and the real value as improved 35 per cent. more, or over \$1,106,000,000.

The following table will give these estimates in detail:

States and Territories.	Unimproved value.	Value of improvements.	Per cent.
NEW ENGLAND STATES.			
Maine.....	\$8,624,706	\$3,018,647	35
New Hampshire.....	5,898,705	1,946,573	33
Vermont.....	9,943,807	3,380,895	34
Massachusetts.....	7,356,313	2,574,709	35
Rhode Island.....	995,296	298,589	30
Connecticut.....	6,162,322	1,848,696	30
Total.....	38,981,149	13,068,109	34
NORTH MIDDLE STATES.			
New York.....	62,839,938	25,135,975	40
New Jersey.....	7,000,223	2,100,067	30
Pennsylvania.....	44,289,057	15,944,060	36
Total.....	114,129,218	43,180,102	38
SOUTH MIDDLE STATES.			
Delaware.....	1,394,209	460,089	33
Maryland.....	5,905,620	2,303,192	39
Virginia.....	10,644,501	3,938,466	37
Total.....	17,944,330	6,701,747	38
ATLANTIC SOUTH STATES.			
North Carolina.....	6,463,053	2,068,177	32
South Carolina.....	4,166,361	1,458,227	35
Georgia.....	10,278,634	3,391,949	33
Florida.....	4,714,937	1,084,435	23
Total.....	25,622,985	8,002,788	31
COTTON STATES.			
Alabama.....	7,618,827	2,438,025	32
Mississippi.....	7,037,677	2,111,303	30
Louisiana.....	4,852,641	1,601,372	33
Texas.....	67,597,260	23,659,411	35
Arkansas.....	8,522,295	2,812,357	33
Tennessee.....	11,001,057	4,180,401	38
Total.....	106,629,757	36,802,499	35

States and Territories.	Unimproved value.	Value improvements.	Per cent.
WESTERN CENTRAL STATES.			
West Virginia	\$8,929,861	\$3,482,646	39
Kentucky	16,879,011	6,751,604	40
Ohio	41,776,513	16,710,605	40
Indiana	29,155,854	11,370,783	39
Illinois	51,782,565	20,195,201	39
Iowa	60,930,182	24,372,073	40
Missouri	35,570,562	13,516,813	38
Kansas	39,114,629	16,428,144	42
Nebraska	31,868,637	12,747,455	40
Total	316,007,814	125,575,324	.....
LAKE STATES.			
Michigan	21,420,947	7,068,913	33
Wisconsin	28,192,548	7,330,063	26
Minnesota	16,351,867	5,396,116	33
Total	65,965,362	19,795,092	30
ROCKY MOUNTAIN AND PACIFIC COAST STATES.			
California	19,813,507	6,340,322	32
Oregon	13,120,202	3,280,050	25
Nevada	5,439,031	1,087,806	20
Colorado	17,619,120	4,580,971	26
Arizona	3,899,437	684,915	15
Dakota	7,173,774	2,582,558	36
Idaho	4,931,937	986,388	20
Montana	15,101,716	3,020,343	20
New Mexico	12,417,372	1,986,779	16
Utah	3,550,356	958,596	27
Washington	5,958,152	1,429,956	24
Wyoming	18,158,568	5,447,571	30
Indian Territory	6,800,000	2,040,000	30
Total	133,983,172	34,326,255	26
Grand total	819,263,787	287,451,916	35

This table is the result of a systematic canvass, and is now for the first time laid before the country. It shows the estimated improvement in value of the original unimproved stock.

To show you, moreover, the extent to which improvement by superior blood has been carried, I call your attention to the large percentage of high-grade cattle now found in the States and Territories, also the result of the only canvass ever made by counties of improved stock. It is interesting and encouraging to see how large this percentage is in those States where agriculture is the leading business and where the farmers have boldly and wisely entered into the most active agricultural enterprises. While in some of the States the amount of high-grade and pure-bred cattle is only 8 or 9 per cent., in Kentucky it is 40 per cent., in Ohio 40 per cent., in Indiana 33 per cent., in Illinois 35 per cent., in Massachusetts 32 per cent. These facts are encouraging to the cattle-breeder, and indicate, if anything were necessary to do so in a prosperous assembly like this, the safety and profit of well-conducted

business of this description. The exact statistics on this point are found in the following table:

States and Territories.	Total number of cattle.	High-grade cattle.	
		Pr. ct.	Number.
Maine	351,014	25	87,753
New Hampshire	236,941	21	49,758
Vermont	418,250	20	83,650
Massachusetts	268,619	32	85,958
Rhode Island	35,309	34	12,005
Connecticut	234,446	31	72,678
New York	2,396,945	20	479,389
New Jersey	234,513	18	42,212
Pennsylvania	1,760,345	18	316,862
Delaware	54,367	18	9,786
Maryland	264,342	15	39,651
Virginia	682,173	14	95,504
North Carolina	653,847	11	71,923
South Carolina	354,643	10	35,464
Georgia	951,859	9	85,667
Florida	606,054	9	54,545
Alabama	759,768	8	60,781
Mississippi	695,328	8	55,626
Louisiana	425,055	7	29,754
Texas	4,945,201	10	494,520
Arkansas	678,628	9	61,077
Tennessee	779,826	18	140,369
West Virginia	450,897	24	108,215
Kentucky	803,608	40	321,443
Ohio	1,799,816	40	719,926
Michigan	895,870	19	170,215
Indiana	1,356,148	33	447,529
Illinois	2,343,328	35	820,165
Wisconsin	1,215,477	16	194,476
Minnesota	770,948	12	92,514
Iowa	3,040,887	21	638,586
Missouri	2,009,647	20	401,929
Kansas	1,922,133	21	403,648
Nebraska	1,624,044	17	276,087
California	830,208	12	99,625
Oregon	601,216	13	78,158
Nevada	234,389	10	23,439
Colorado	815,674	12	97,881
Arizona	216,057	5	10,803
Dakota	346,537	15	51,981
Idaho	220,612	9	19,855
Montana	686,839	9	61,815
New Mexico	707,305	5	35,365
Utah	170,653	15	25,598
Washington	276,008	10	27,601
Wyoming	901,533	10	90,153
Indian Territory	520,000	8	41,600
Total	42,547,307	18	7,723,539

Representing as you do the great cattle industry of the ranches and broad grazing lands whence our market is largely supplied with beef, and in the perfection and development of which every American must be deeply interested, your attention will be attracted, I am sure, by the estimated number and value of the horned cattle west of the Mississippi River. The total number of cattle is 21,943,574, and their value is considered to be \$533,650,871, divided among the States and Territories of that section as follows:

States and Territories.	Number.	Value.
Louisiana	425,055	\$6,454,013
Texas	4,945,201	91,256,301
Arkansas	678,628	11,334,652
Minnesota	770,948	21,747,983
Missouri	2,009,647	40,087,375

States and Territories.	Number.	Value.
Iowa	3,040,887	\$85,302,255
Kansas	1,922,133	55,542,773
Nebraska	1,624,044	44,616,092
California	830,208	26,153,829
Oregon	601,216	16,400,252
Nevada	234,389	6,526,837
Colorado	815,674	22,200,091
Arizona	216,057	4,484,352
Dakota	346,537	9,756,332
Idaho	220,612	5,918,325
Montana	686,839	18,122,059
New Mexico	707,305	14,404,151
Utah	170,653	4,408,952
Washington	276,008	7,388,108
Wyoming	901,533	23,606,139
Indian Territory	520,000	8,840,000
Total	21,943,574	533,650,871

The result of the large investment and active industry I have endeavored to lay before you is instructive and interesting. Among all the products of our country the meat product stands foremost, the order being: First, meats; second, corn; third, wheat; fourth, hay; fifth, dairy products; sixth, cotton. The export and consumption are enormous, and have never been equaled by any nation whose chief business even had been concerned with flocks and herds. The growth of the business has been unexpectedly rapid, and stands now among the most important on this continent.

After the most careful investigation I find the estimated production of meats during the year 1880 to have been:

	Number of animals slaughtered.	Product.	Average price per pound.	Value.
Swine	29,000,000	Pounds.	Cents.	
Beeves	6,500,000	5,120,000,000	7.0	\$358,400,000
Veals	3,000,000	3,125,000,000	8.5	265,625,000
Sheep	7,000,000	275,000,000	8.0	22,000,000
Lambs	5,000,000	350,000,000	8.2	28,700,000
		100,000,000	9.0	9,000,000

This makes an aggregate of about \$684,000,000. Other products of slaughtered animals—hides, horns, tallow, fats, glue, bristles, and other products—would make a grand total approximating \$800,000,000.

From this widespread industry, which I have delineated with some care, comes, of course, the home supply of beef and dairy products in addition to all the subsidiary products of the pasture and stall, such as hides, horns, &c., with their various manufactures. The entry of beef and cattle into our foreign trade, however, is a point upon which it is now important to dwell, and I have prepared some comparative tables showing the growth of this branch of commerce during the last four or five years.

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The exports of beef during the fiscal year ended June 30, 1884, are:

	Pounds.	Value.
Fresh beef.....	120,784,064	\$11,987,331
Beef, salted or cured	43,021,074	3,270,033
Beef, canned.....		3,173,767
Total value for 1883-'84		18,431,131
Total value for 1882-'83		16,663,315

The exports of fresh beef have exceeded those of any previous year. The nearest approach in former years was 106,004,812 pounds in 1880-'81.

The export price in the past year averages 9.9 cents per pound.

The number of cattle exported the past year has also largely increased, being 190,518, against 104,444 the previous year. If we count the canned beef and make the net beef average of all grades exported 550 pounds, we have about 360,000 slaughtered beeves exported, which, with 190,000 shipped alive, make a total of 550,000 beeves exported.

Exports of cattle were formerly of the Longhorn race, from Texas and Florida to Cuba and neighboring islands. They were valued at \$16 to \$17 per head at most, and those of Florida sometimes \$13 to \$14. This Southern trade had little variation and little growth from 1850 to 1877, when the era of exports of fat beeves to Europe commenced. Examination of the following table will show that the Northern exports, from 1870 to 1876 inclusive, did not much exceed a thousand annually, but increased with wonderful rapidity after 1877. The exports from Boston and New York show this increase, and the miscellaneous exports in the "all other" column were mostly from Northern ports. The statement is as follows:

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Domestic exports of horned cattle, by customs districts, 1870 to 1884, inclusive.

Years.	New York.		Boston.		Key West.		Saluria, Tex.		All others.	
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
1870.....	1,201	\$155,347	.....	.....	6,404	\$74,796	2,045	\$11,957	17,880	\$197,887
1871.....	1,070	128,785	4	\$250	7,171	98,102	219	1,836	12,066	174,518
1872.....	1,037	106,638	.....	.....	17,712	291,691	34	382	9,250	167,008
1873.....	990	98,675	6	600	17,008	278,244	276	3,030	17,175	315,408
1874.....	1,267	226,894	1	112	17,627	317,574	159	1,952	37,013	604,325
1875.....	1,564	234,938	3	340	11,453	178,682	10,546	159,139	33,645	529,986
1876.....	1,589	160,268	144	18,720	8,482	112,874	19,000	324,825	22,378	494,016
1877.....	4,863	485,183	1,566	175,575	9,071	120,244	17,830	306,500	16,671	505,578
1878.....	13,387	1,233,233	13,887	1,346,748	16,190	220,764	20,871	371,700	15,705	724,373
1879.....	27,210	2,340,997	35,593	3,515,669	25,466	346,300	21,441	368,878	27,010	1,807,956
1880.....	65,151	6,047,914	52,482	5,110,563	28,600	100,315	16,526	290,929	19,997	1,494,474
1881.....	56,921	5,330,502	70,072	6,984,838	22,580	318,189	15,705	264,476	20,429	1,406,098
1882.....	33,412	3,332,004	32,568	3,316,848	27,291	410,758	7,300	134,888	7,539	605,729
1883.....	29,554	2,988,083	37,613	3,785,782	19,399	330,435	2,015	46,413	15,833	1,190,718

The largest portion of these exports have gone to Great Britain. The actual numbers to the different countries for six years past were as follows:

Countries to which exported.	1879.	1880.	1881.	1882.	1883.	1884.
England	68,544	118,242	124,317	61,876	67,013	150,686
Scotland	3,250	7,275	9,744	6,132	9,078	18,571
Germany	1,330	-----	207	6	-----	323
Belgium	1,816	3,342	2,093	-----	189	-----
France	118	1,240	1,297	110	-----	-----
Cuba	49,228	45,515	38,941	34,603	20,784	8,015
British West Indies and Honduras	1,531	2,409	1,978	1,531	1,174	1,163
Dominion of Canada	8,555	2,840	4,658	2,803	3,821	3,475
Mexico	2,145	992	1,254	798	1,812	8,093
Other countries	203	901	1,218	256	573	192
Total	136,720	182,756	185,707	108,110	104,444	190,518

But numbers do not represent the relative importance of this trade. The trade to Mexico is mainly young or stock cattle. Cuba takes beeves of the Spanish type at a low value.

The average of nearly \$6,000 per head for cattle sent to England in 1874 represents only eighteen head, mostly, if not all, of the Bates family of Shorthorns. Canada receives stockers and beeves of Northern breeds at much lower prices than the fat and heavy beeves shipped from New York and Boston. The average is as follows:

Average value of cattle exported.

Years.	Mexico.	Cuba.	Canada.	England.	All countries.
1874	\$8 29	\$17 46	\$25 96	\$5,850 00	\$20 53
1875	9 31	15 54	29 51	663 64	19 28
1876	8 94	16 34	34 52	113 82	21 53
1877	9 95	16 06	30 81	107 56	31 86
1878	8 50	17 02	45 98	97 02	48 69
1879	9 48	15 79	60 57	92 59	61 29
1880	10 72	15 47	32 73	94 71	73 02
1881	10 96	15 35	29 32	96 82	77 03
1882	23 46	15 85	44 30	102 27	72 15
1883	26 21	17 64	38 59	100 44	79 86
1884	15 89	18 09	27 86	102 71	93 72

The total exports of fresh beef from the first exportation are given as follows:

Exports of fresh beef.

Years.	England.	Scotland.	France.	Total exports.
	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>	<i>Pounds.</i>
1877	39,906,940	9,304,050	-----	49,210,990
1878	44,800,369	8,746,100	487,690	54,046,771
1879	46,962,039	5,830,930	1,039,941	54,025,832
1880	70,524,881	13,930,000	-----	84,717,194
1881	81,637,577	21,714,900	-----	106,004,812
1882	49,672,848	15,700,093	-----	69,586,466
1883	54,279,542	24,791,300	-----	81,064,373
1884	90,438,258	25,162,799	-----	120,784,064

The following table shows the distribution of preserved meats, canned goods, &c.:

Countries to which exported.	1879.	1880.	1881.	1882.	1883.	1884.
England	\$5,344,791	\$5,632,385	\$4,363,237	\$2,702,264	\$3,018,439	\$2,065,738
Scotland	966,260	961,010	719,356	750,967	658,994	476,384
British West Indies and Honduras	66,949	76,201	52,413	35,954	28,026	9,402
Germany	402,999	389,823	291,846	179,681	139,434	158,286
France	86,976	150,810	83,091	14,296	26,606	25,182
Belgium	72,381	74,643	55,633	68,307	30,594	26,688
Cuba	39,239	17,396	5,903	11,167	4,579	1,436
Other countries	391,813	574,932	400,078	445,972	672,230	410,651
Total	7,311,408	7,877,200	5,971,557	4,208,608	4,578,902	3,173,767

The following table, giving the imports of fresh beef into the United Kingdom in 1883, is of great interest in this connection:

Imported from—	Quantities.	Value.	Value per cwt.
Russia	Cwts. 21,986	£54,431	£ 2 9 6
Denmark	545	1,475	2 14 2
Germany	14,421	42,902	2 19 6
Holland	184	550	2 19 9
Channel Islands	464	1,854	3 19 11
France	263	977	3 14 4
Portugal	277	736	2 13 2
Australasia	1,522	4,231	2 15 7
British North America	33,951	94,221	2 15 6
United States	730,966	2,059,007	2 16 4
Other countries	215	554	2 2 3
Total..	804,794	2,260,941	2 16 2

That an industry like this should be considered worthy of the most careful consideration by State and national governments is not surprising; and in Congress and many of the State legislatures efforts have been made to prevent the spread of destructive diseases, and to surround the industry with as much safety as possible. The incursions from time to time of those dangerous diseases which have so often ravaged the older countries on account of insufficient commercial regulations, and the apparent spread of those diseases, have created great alarm among cattle breeders and feeders in this country, and have at times affected injuriously the market for our cattle products abroad. The anxiety growing out of this state of affairs has been great and widespread, especially among those who are engaged in supplying the market with beef cattle. Their business, exposed as it is inevitably to all the changes of the market, and to losses from exposure of cattle in remote pastures, and to inclement seasons and ordinary disease, naturally demands special protection from the Government, to whom alone can they look for the aid they require. In every country where the cattle industry is important extirpation has long been resorted to as a pre-

ventive of the spread of contagious animal disease, and the cost of such extirpation has been defrayed by the Government under proper regulations. In this country this course promptly carried out has been found to be entirely effectual; and the policy of the State of Massachusetts, which met the issue promptly nearly a quarter of a century ago, and removed the evil entirely, has been often referred to as an example worthy of being followed. The request made by this association that Congress should take steps in a similar direction was therefore natural and proper; and the favorable response to that request has already been promotive of great good, and has undoubtedly laid the foundation of a policy which, when matured, will give the American cattle-breeder all the information necessary to enable him to understand the exact amount of danger to which he is exposed, and to feel assured that he will find all necessary aid and protection. It is important that we should be shielded against the importation of disease from abroad; that we should understand thoroughly the nature and extent of diseases threatening a contagious progress; that constant and exact investigations should be conducted wherever disease exists, and that means should be provided for the prevention of the spread of the disease from State to State, and for its extirpation as a public necessity for the public good without private burdens.

The passage of an act with which you are all familiar, known as the act for the establishment of a Bureau of Animal Industry, &c., has enabled the Department of Agriculture, in a somewhat limited way it is true, but with systematic arrangement, to investigate several unexpected outbreaks of disease, to pronounce the character of the disease, to warn local authorities of its existence, to allay fears, to test the contagiousness of diseases found in several localities by confining sound and unsound cattle in one inclosure, and to ascertain the amount of disease in places where it had been known or suspected to exist. This work has been carefully and dispassionately done, and I think I owe it to you to give an account of it in such concise form as the limits of this address require. I will give you a sketch of the work which the Bureau of Animal Industry has performed since its establishment.

The investigations of the Bureau into the disease known as Texas fever have determined, thus far, that the boundary line of the district containing this disease extends from the Atlantic seaboard of the eastern side of Accomack County across the States of Virginia, North Carolina, South Carolina, Georgia, and Tennessee to the Mississippi River. Maps of the infected districts have been prepared, and will be issued in a special report of the Department of Agriculture on contagious diseases of animals. Much work has been done toward locating this district in Arkansas and Indian Territory. The practical result of determining the extent of this infected district will be to enable cattle-owners to know exactly what animals are dangerous to northern stock.

It will enable the country to establish a quarantine line which will hold back all dangerous cattle without including many that are perfectly safe, as must necessarily be done now. Persons shipping cattle from the North to the South will know exactly when they are in territory which is liable to infect them. Those, moreover, who desire to establish stock farms just without or just within the infected districts, as many do, will have a guide which will save them from ruinous mistakes.

The occurrence of a disease in Kansas supposed to be "foot-and-mouth disease" made it necessary for me to direct an investigation by the chief of the Bureau of Animal Industry, Dr. Salmon, whose discretion and scientific skill on that occasion were of great service to the country. The conclusions arrived at, that the disease was not "foot-and-mouth disease," but was a disease caused by local influences, prevented much hasty legislation in Kansas and adjoining States, and have finally been accepted by all. An exhaustive report of this outbreak will appear in the special report referred to above.

Experiments have been instituted in Washington in order to test the contagiousness of a lung disease prevailing in the District, supposed to be pleuro-pneumonia. Fifteen animals were exposed in close confinement at different times to cows affected with this prevalent lung disease, and none of them were attacked with the disease to which they were thus exposed. Later four cows in very poor condition were placed in the same confinement and were attacked with disease, two after a month's exposure and two after exposure of two months. One of these animals was fatally ill; the remaining three were recovering when slaughtered.

Experiments similar to these have been commenced in New York, a stable having been erected for the purpose on Barren Island. Eighteen cows, sixteen of which were from Canada, where pleuro-pneumonia does not exist, were selected for their healthfulness and fine condition, and placed in the stables about the middle of September in contact with three or four animals affected with the disease. In the latter part of October three of the cows thus exposed were found to have symptoms of pleuro-pneumonia, and when slaughtered proved to be characteristic cases. The disease extended through a large portion of the lungs in each animal. Other animals now show symptoms of the disease.

On account of the existence of the disease upon which these experiments were founded in New York, a system of inspection has been instituted in order to ascertain the extent to which the disease exists in the cow stables in that city and Brooklyn.

The following table will show the number of stables visited by officers appointed for the purpose of inspection, and the number of cattle inspected, and the number affected with pleuro-pneumonia in the various localities designated :

Location.	Stables.	Cattle inspected.	Affected with pleuro-pneumonia.
New York City	756	3,318	26
Long Island	1,413	19,072	325
Staten Island	555	3,857	12
District of Columbia	390	2,246	42
New Jersey	13	180	8
Jersey City abattoir	39 visits	.....	13
New York offal dock		63	20
Slaughter-houses		76	14
Total	3,127	19,812	460
Reinspections—	60	868	100
Brooklyn			

The unexpected appearance of pleuro-pneumonia in the Western States in August last attracted universal attention and created great alarm among all who are interested in the cattle industry of that section of the country. The disease seems to have been discovered in a herd of cattle in Elmhurst, near Chicago, and on tracing its origin eight herds were found to be infected, all but one of which were clearly connected by the interchange of cattle. Two of these were in Ohio, one in Kentucky, and five in Illinois. The number of animals exposed was 625, 101 of which have contracted the disease. A prompt and thorough investigation of the disease by Professor Salmon, assisted by some of the most experienced and reliable veterinary surgeons in the infected region, convinced those engaged in the transportation of cattle that unusual care should be exercised in this business, and induced those engaged in cattle breeding and feeding to guard with great diligence against the exposure of their herds by purchase or exchange. The interesting fact that the disease was confined to herds of Jerseys alone rendered the designs of those two classes of dealers easy of accomplishment—the Jerseys not entering into the general cattle traffic of the country, and their purchase and exchange being confined to much narrower limits than that of the beef-producing breeds, which constitute the great bulk of our transported cattle, and their breeding being carried on for the production of dairy cows alone, whose business does not require great herds or a wide range. We may congratulate ourselves, therefore, that this insidious disease has not made its appearance among the herds devoted to the production of beef.

The Shorthorns and Herefords and Galloways and Polled Angus cattle have thus far escaped, and I have no doubt that the appearance of the disease in herds and breeds of less general demand has acted as a warning which will increase the careful work of preventing in every

way the spread of the disease. Pleuro-pneumonia is an insidious and lurking disease. It may remain a long time in a given locality without extending, and without warning steal forth on its march of destruction. But it can always be isolated and extirpated by proper measures. Time and again has it been driven from Holland by these measures. It was once removed in this way from Australia. It has been repeatedly removed or reduced to a bare existence in England. Twenty-four years ago it was distinctly planted in Eastern Massachusetts from Holland, and from Eastern to Central Massachusetts, and was extirpated, never, thus far, to return. It is now isolated in the West. Intercourse with the infected herds to which I have referred has been cut off, fatally diseased animals are dying in their isolation, and time is gradually restoring those attacked in a mild form. The danger still exists, it is true. But recognizing the fact that the contagion will ultimately die out, it is only necessary to continue the isolation long enough and the present danger is over. I think you will all agree with me that every agency, State and national, which can accomplish this object should be carried out. A threatening danger like this must inevitably discourage the breeder; it must annoy the feeder, and it must of necessity interfere with that traffic which has become of vast importance to the carriers, the home consumers, and the foreign market. Whoever is interested in American cattle is interested also in the security of the cattle business on this continent, and in the reputation of American cattle and beef, and he must feel the importance of protecting our herds against all approach of disease. And knowing as we do that this has been and can be done, we have only to unite in one effort to accomplish so desirable an object.

You will listen, I am sure, with great pleasure to the investigations made by Professor Salmon with scrupulous care and with non-partisan motives into pleuro-pneumonia and other contagious diseases of animals in various parts of the country. He has ascertained with great scientific research the nature of the diseases, their extent, and the danger arising from them. You will learn from him that we have the worst of them under control, and I feel confident that, encouraged by this fact, you will urge every proper and constitutional measure on Congress, and upon the States most vigorous co-operative action, in order that the vast animal industry of the country may be placed on a safe and sure foundation.

This industry, involving as it does the question of inter-State commerce, national health, national prosperity, and of evident national regulation, may be classed among the great commercial questions, which are referred to Federal consideration and placed in Federal care. On this ground I am confident you can urge salutary action upon Congress, and the exercise of powers contained in your proposition of a bill for the establishment of a Bureau of Animal Industry, a bill which became a law mainly through your exertions. The Bureau which was

established by the act to which I have referred, and which this association labored so diligently to create; has become a most important branch of the Department of Agriculture. The business of that Department is to collect agricultural facts and to distribute agricultural information. Realizing this, the chief of that Bureau has devoted himself diligently to the collection of all facts bearing upon the existence of diseases among cattle, and has laid those facts candidly before the country, believing that the information he could give would lead to further State and national legislation. The work of the Bureau should not, however, end here. The domestic animals of our country constitute a large portion of our wealth, and are among the forces by which our business is carried on. Included in this great multitude are not our cattle alone, but our horses, sheep, and swine, in the condition and development of which we are equally interested. A thorough understanding of the wants and necessities of all these classes of animals, the modes of breeding and feeding, their protection from disease, and their actual value, are items of information of which every farmer in our land ought to be possessed. I am constantly appealed to as Commissioner, from almost every State in the Union, for facts bearing not only on the diseases of all these varieties of animals, but on their treatment and selection for different localities. To answer these inquiries I am anxious to obtain the best possible knowledge, arranged in a systematic manner; and while all the other great industries of our land have their representative organizations and their recognized central points of information, I trust the time will soon come when the breeders and feeders of animals will have their central organization, into which all important information for their benefit may be gathered, and for which it can be diffused for the common good. An industry thus organized under national care will soon become an object of national protection against calamity.

One of the most interesting and important business enterprises of modern times is in your hands. The occupation of the water-power of the country has called into operation vast amounts of labor and capital, and has created new communities with all the comfort and enjoyment which prosperity can secure. The railway enterprise of our land has been developed to such enormous proportions, and is conducted with such activity, that it stands by itself a monument of our power of organization, and has created of this vast continent a condensed community and a neighborhood. The quiet industry divided among the millions of American landholders constituting that diverse and universal occupation known as American agriculture has become a model in its way, which other nationalities would gladly adopt and follow, and is as perfect in all its details as an intelligent, enterprising, prosperous, responsible people can make it. But among all these industries not one stands in more interesting and commanding attitude than that which now occupies regions once considered uninhabitable, and large

portions of which were once included in that *terra incognita* called by early geographers "the Great American Desert." The conversion of this region into a scene of appropriate activity, in which its valleys and hillsides and streams have been called into service, has developed a business which employs vast capital, brings forth an enormous product, and has made the nomadic life a scene of well-organized industry and social life. The thorough organization of this industry is an object worthy of all the intelligence and wisdom and organizing power of a successful business community. As time goes on the most careful and accurate calculation will undoubtedly become necessary, and the most systematic production will alone secure a profit. In these early days of prosperity, when as it were the spontaneous productions of the earth are gathered in for a rich harvest, the methods may be laid down which at a later day will be required to give the vast enterprise a reasonable success. The management of grazing lands, the selection of cattle best adapted to the soil and climate, the most profitable modes of breeding, the care of reservations, which will afford shelter during the freezing months of winter, the best method of securing a rapid production of beef, are all matters which have occupied your attention, I am aware; but the inquiry into them is by no means exhausted, and this association has a great work in its hands when it endeavors to solve, as a body of intelligent men, these problems. The attraction of capital to the enterprise you are engaged in is great from all the great financial centers of the world. The free life is, moreover, attractive to that adventurous spirit which sends multitudes to the humbler hardships of the frontier. It is not surprising, therefore, that powerful organizations commanding unlimited capital should be attracted hither, and that the agricultural industry of this section of our country should rival the great industrial organizations of the older States. Neither is it surprising that individual enterprise should find here a golden opportunity. I contemplate this Western activity with profound interest, and congratulate this association on the great industry in which it is engaged.

The exhibition of fat cattle now being held in the metropolis of this branch of agriculture and trade illustrates the superior skill which the American farmer exercises in his calling. It would not be possible to collect a more remarkable exhibit of cattle brought to physical perfection than is to be found here. Not Smithfield, not Hamburg, not the great estates of the land-loving nobility of England, could compete successfully with the display made here by the practical breeders of the Northwest, who, in competing with each other, encounter the strongest competition in the world. The vast cattle ranges of the Far West are impressive in their way, as I have said; but here we witness that careful management of well-bred herds without which the occupation of the ranches with profitable cattle would be an impossibility, and we witness, moreover, that well-organized market which a vast trade has

created, with all its machinery—a market which places Chicago among the great commercial centers of the world. To the student of American agriculture, to the observer of the best laws of animal economy, to the believer in the success and profit which attend a well-organized and well-managed stock farm, to the admirer of thrifty and well developed animals, the Exhibition has many attractions. I congratulate the farmers of this section that such a show is possible, and I congratulate those who are engaged in stocking the great Western plains that such a fountain of profitable blood is here kept full to overflowing by the enterprise and skill which are here represented.

*PRELIMINARY REPORT OF THE VETERINARY INSPECTORS EMPLOYED
IN INVESTIGATING CONTAGIOUS DISEASES OF ANIMALS IN NEW YORK
AND BROOKLYN.*

NEW YORK, November 19, 1884.

SIR: The undersigned veterinary inspectors under the United States Bureau of Animal Industry, appointed by you to investigate the condition of the cow stables of New York, Brooklyn, and New Jersey, and the amount of contagious pleuropneumonia found therein, have attended to the work assigned them, and deem it important to make a preliminary report of their proceedings and the results of their investigations for the benefit of this community, who are the consumers of the dairy products of this region, and for the information of those sections of the country in which the cattle industry is large and valuable. The co-operation of the municipal and health authorities of New York, Brooklyn, and Jersey City, and of the managers of the stock yards, has been freely and generously given in the work, which includes the examination of all cattle in the stables and yards, and also the condition of the quarantine station at Garfield, N. J. In the investigations made the utmost care has been taken to examine all the conditions surrounding the animals—such as the location, cleanliness, and ventilation of the stables, the amount of exposure to disease; and, as far as possible, the history of the cases examined and the application of the best scientific knowledge to be obtained by us has been uniformly made.

The condition of the trade in cattle has been found to be generally good. The cattle brought from the West by rail have been in excellent order, and have told well for the care, feeding, and breeding of that section of the country from whence they came.

The quarantine station, under the charge of Dr. A. M. Farrington, has been well managed, and the importers of foreign cattle have cheerfully complied with all the requirements of the law.

The inspection of the cow stables has been carefully conducted and has resulted as follows: In 756 stables in New York City, containing

3,318 cows, there were found 26 cows infected with pleuro-pneumonia. On Long Island 1,413 stables have been inspected, and among the 10,072 cows confined in them there were found 325 cases. In 555 stables on Staten Island, containing 3,857 cows, there were found 12 cases. In 13 stables in New Jersey, containing 180 cows, there were found 8 cases. In the Jersey City abattoir 39 visits discovered 13 infected animals. In the New York offal dock, out of 63 post-mortems 20 were found to be cases of pleuro-pneumonia. In the slaughter-houses of New York and Brooklyn 76 animals were examined and 14 were cases of the disease. In many instances of reinspection it was found that the animals diseased on first inspection were dead, and the cases which presented themselves were new ones. The result of the investigation has been to give a definite idea of the extent of the disease, and to secure a great improvement in the condition of the stables in which the animals are confined. It is evident, moreover, that the owners of the cows are satisfied that the work of inspection is of great benefit to their business as milk producers, and they have in many cases applied for the inspection where they suspected the disease might exist, and also to satisfy the boards of health that they have complied with the sanitary regulation.

The experiments relative to the contagiousness of pleuro-pneumonia, as found in the stables inspected, which are conducted at the station on Barren Island, have developed many important facts; and in connection with similar work at the station in Washington have secured much valuable information which will be laid before the public in detail in the report of the chief of the Bureau. The contagiousness of the disease found here has been proved beyond a question, and we are confident that further investigation in this direction will enable us to decide upon the virulence of the disease as found in America, the time of incubation here, and the possibility of controlling it in those sections in which it may unexpectedly appear. The Brooklyn board of health, through the commissioner, Dr. J. H. Raymond, have expressed great satisfaction with the work going on at Barren Island station, as it enables them to decide as definitely as possible the precise nature of the disease, about which some doubt seems still to exist in the minds of many who are interested in the matter scientifically and economically. The board has been entirely disposed to consider our work as that of professional investigators, and not that of "non-professional" inquiries. We are happy to state that correspondence with the Department of Agriculture upon enlarging the sphere of these experiments, as bearing on the production of healthful milk, will be entered upon by Dr. J. B. White, member of the New York board of health, and also by Dr. J. H. Raymond; of Brooklyn, who have witnessed our experiments with great interest and anticipate much benefit therefrom. We are entirely of opinion that all possibility of communicating the disease by decomposing and steamed animal matter at or near stations is not to be feared in any

degree; and in this opinion Prof. C. F. Chandler has expressed to us his concurrence, at a deliberation in which he was kind enough to take part.

Confident that the work we have undertaken will, if continued under the rules we have laid down, be promotive of great benefit, and will afford valuable information to the community, we are,

Respectfully, &c.,

L. McLEAN, M. R. C. V. S.
WM. B. E. MILLER, D. V. S.
CH. B. MICHENER, D. V. S.
THOMAS J. HORR, M. D., D. V. S.
JAMES W. HAUK, D. V. S.
H. WHITFIELD ROLAND, D. V. S.

Hon. GEORGE B. LORING,
U. S. Commissioner of Agriculture.



